

ABSTRACT

An efficient and non-iterative post processing method and system is proposed for mosquito noise reduction in DCT block-based decoded images. The post- processing is based on a simple classification that segments a picture in multiple regions such as Edge, Near Edge, Flat, Near Flat and Texture regions. The proposed technique comprises also an efficient and shape adaptive local power estimation for equivalent additive noise and provides simple noise power weighting for each above cited region. An MMSE or MMSE-like noise reduction with robust and effective shape adaptive windowing is utilized for smoothing mosquito and/or random noise for the whole image, particularly for Edge regions. Finally, the proposed technique comprises also, for chrominance components, efficient shape adaptive local noise power estimation and correction.